

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 9, 17 and 23 are requested to be cancelled without prejudice or disclaimer. Claims 1, 24, 25, 27 and 29 are currently being amended. Support for these amendments can be found at least in the specification, for example, in the specification with respect to the discussion of the results in Tables 1-4, and on page 8, lines 11-16 and page 17, lines 19-23. No new matter is being added.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 3, 7, 8, 10, 15, 16, 20-22, 24, 25 and 27-29 are now pending in this application.

Rejections Under 35 U.S.C. § 103

Claims 1, 3, 7-10, 15-17 and 20-29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,693,203 to Ohhashi et al. (hereafter "Ohhashi") in view of applicants' alleged admission in the Rule 132 declaration filed on April 12, 2004, or U.S. Patent No. 4,720,300 to Nishizawa et al. (hereafter "Nishizawa"). Claims 9, 17, 23-25 and 27-29 further stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ohhashi in view of alleged prior art admission on page 2, lines 1-24 of the instant specification. Applicants respectfully traverse these rejections for at least the following reasons.

Applicants' remarks from the Amendments filed October 14, 2008 and October 21, 2008 are incorporated by reference.

Independent claims 1, 24, 25, 27 and 29 have been further amended to recite features regarding a resistivity of the Al interconnection film being 4 $\mu\Omega\text{cm}$ or less, in the context of a

Nb liner film for the Al interconnection film. Ohhashi and Nishizawa fail to suggest this feature of the claims. Ohhashi merely discloses a sputtering target assembly composed of a sputtering target and a backing plate. Ohhashi, however, does not disclose the properties of any film formed by the sputtering target, much less for a Nb liner film for an Al interconnection film, where the Al interconnection film has a resistivity of 4 $\mu\Omega\text{cm}$ or less.

Moreover, Ohhashi fails to make any suggestion on how to achieve a Nb liner film for an Al interconnection film, where the Al interconnection film has a resistivity of 4 $\mu\Omega\text{cm}$ or less. Ohhashi is directed merely to a sputtering target itself, but not to any films formed using the target or in particular to an Al interconnection film with the resistivity recited in the independent claims. Even if the sputtering target of Ohhashi were to be used to form a Nb liner film for an Al interconnection film, Ohhashi makes no suggestion regarding how to achieve the resistivity as recited in the independent claims.

Nishizawa was merely cited for allegedly disclosing that a Ta concentration is conventional in crude niobium metal, but fails to cure the deficiencies of Ohhashi.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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